## Ministry of Science & Technology PSDP 2021-22

PSDP	Name of Durlant					Rs in million
No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date of completion	Project Objectives
1	2	3	4	5	6	7
Α	MoST Organizations				and the treatment	
and the second	PCSIR	And State States	STATE OF STA			
1048	Establishment of Technical Training Center for Precision Mechanic and Instrument Technology Gwadar	CDWP / 29.03.2018 / Ext. 30.06.2020 DDWP 09.11.2020 Ext. 30.06.2022 Starting Date 29-03-2018	1210.150	6.465	30.06.2022	<ul> <li>To lay the foundation for the development and generation of technical know-how in the field of Precision Mechanics Instrument Technology &amp; Die and Mould Technology.</li> <li>To organize and conduct a three-year diploma of Associate Engineering in Precision Mechanics &amp; Instrument Technology, Dies and Mould Technology Intake 180 students per year.</li> </ul>
1058	Up gradation of Machinery, Equipment and Renovation of Buildings of IIEE & PSTC Karachi.	DDWP 02-04-2020 Starting Date 15-10-2020	125.000	50.000	15.10.2022	<ul> <li>Project is being executed by PCSIR and is related to up gradation of its technical institutes (IIEE and PSTC) for the productivity of human factor to cope up with the rapid developments in the field of Engineering &amp; Technology.</li> <li>Addition of Lab Trainers, General Lab Equipment, Machinery, Modernization of Labs and Library</li> </ul>
	Up gradation of Medicinal Botanic Centre as National Centre for Herbal Medicine, PCSIR Labs. Complex, Peshawar	CDWP 02.05.2018 24 months DDWP Rev. 04.08.2021 Starting Date 15-08-2018	286.000	23.686	30.06.2022	<ul> <li>The main objective of the project is to establish National Center for Herbal Medicine (NCHM) at PCSIR Laboratories Complex Peshawar.</li> <li>To upgrade research facilities according to WHO guidelines</li> </ul>
1060	Up gradation of Polymer & Plastics Laboratory at PCSIR Laboratories Complex, Lahore.	CDWP 06.05.2019 Starting Date 26-07-2019	134.695	34.695	30.06.2022	<ul> <li>To upgrade the current instrumental set-up [from around 4 to 32 requested Scientific Instruments] of the Polymers and Plastics Laboratory at Applied Chemistry Research Centre at PCSIR Laboratories Complex, Lahore</li> <li>To sustain enhance and improve the scope of polymer analysis to better accommodate customer requests arising from increased industrial activity.</li> </ul>
	Cultivation and Processing of Medicinal and Industrial Cannabis on Experimental Fields and Establishment of testing and product developmnet facilities at P©SIR Laboratories Complex, Lahore, Peshawar and Karachi	DDWP 06-05-2021 Starting Date 13-07-2021	1896.820	300.000	13.07.2024	<ul> <li>To develop experimental fields / land for cultivation of industrial cannabis.</li> <li>To cultivate industrial cannabis on experimental fields and it's processing.</li> <li>To develop and validate analytical methods for testing of industrial cannabis.</li> </ul>

PSDP No.		Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date o completion	f Project Objectives
1	2	3	4	5	6	7
1064	Development of Computer Controlled Fermentors and Production of Biochemicals & Bioproducts	DDWP 06-05-2021 Starting Date 03-09-2021	1981.607		03.09.2023	<ul> <li>Establish a design and manufacturing facility for computerized automated fermenters.</li> <li>Develop indigenous metabolic engineering capability.</li> <li>Develop and upgrade the existing essentially required facilities and infrastructure at PCSIR and ICC/ PAEC. Thus providing establishment of national level integrated bio-processing infrastructure.</li> </ul>
1065	Digital transformation, strengthening and automation of PCSIR	DDWP 27.5.2021 DDWP Rev. 17.12.2021 Starting Date 25-08-2021	960.710	350.000	25.08.2023	<ul> <li>To implement a modern digital organizational network through replacing existing/ obsolete IT equipment with modern I.T. equipment including servers, routers, switches, computers etc.</li> <li>To develop Key software with data driven management dashboards to track and monitor progress towards organizational goals.</li> </ul>
1069	Establishment of Material Resource Centre and development of additive manufacturing and Reverse Engineering Centre at PCSIR	DDWP 27.5.2021 DDWP Rev. 17.12.2021 Starting Date 03-08-2021	1951.683	300.000	03.08.2023	Part A: Establishment of "Material Resource Center" at PCSIR Labs Complex Karachi Part B: Development of Additive Manufacturing & Reverse Engineering Center. PCSIR Labs Complex Peshawar.
1070	Establishment of PCSIR Laboratories Complex, Multan (Feasilbility Study)	CDWP 03-06-2020 DDWP 04.08.2021 12 Months	30.000	30.000	30.06.23	<ul> <li>To Promote quality and excellence in the fruits processing, textile and material science industries to make it globally competitive by introducing novel technologies.</li> <li>To introduce the post harvest techniques to minimize post harvest losses of fruits like mangoes, citrus and dates.</li> </ul>
1077	Research, Development and Innovation Program in PCSIR	DDWP 27.5.2021	1500.000	200.000	04.08.2023	Establishing an RD&I Programme facility for a variety of purposes in the domain of scientific/ technological/ industrial research such as new technology initiatives, cutting-edge/ advanced R&D, commercialization, digitalization, marketing, industrial-business linkups/partnerships, etc. leading to indigenous commercial/industrial ecosystem.
1080	Up gradation of Calibration Centre Capabilities at PCSIR Peshawar	DDWP 11-05-2020 18 Months Starting Date 03-08-2021	35.000	15.000	03.02.2023	To enhance the existing capabilities of Calibration Centre for the facilitation of Local Manufacturers and Public / Private Organizations. in the fields of Mass, Dimensional, Temperature, Electrical/Electronics, Mechanical and Chemical
1081	Upgradation of Halal Authentication Labs at PCSIR Laboratories Complex, Lahore, Karachi and Peshawar	CDWP 03-06-2020 36 Months	722.980	200.000	-	<ul> <li>To develop new analytical methods for identifying Haram ingredients adulterated in expected Halal food and non-food items</li> <li>To conduct research and development on new Halal food production and to advise the Government of Pakistan on the development of National Halal Policies</li> </ul>
	Sub Total PCSIR		10834.645	1845.151		
	PCRWR				1999 A.	

PSDP No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date of completion	Project Objectives
1 1076	2 Rehabilitation and Conservation of Karezes for Sustainable Groundwater Management and Livelihood Improvements in Baluchistan (PCRWR)	3 DDWP 11-05-2020 Starting Date 09-07-2021	<b>4</b> 42.000	5 15.000	6 30.06.2024	<ul> <li>To assess technical, economic and social aspects for rehabilitation and conservation of Karez water system;</li> <li>To build technical capacity through rehabilitation and maintenance of selected non-functional Karez system; and To develop networking with concerned institutions in the region to share the information and experience in the traditional water systems.</li> </ul>
	Sub Total PCRWR		42.000	15.000		
	PSF				A CONTRACTOR	
1042	Competitive Research Programme	CDWP 04-12-2017 DDWP Rev. 04.08.2021 Starting Date 20-06-2018	1964.500	150.000	30.06.2026	<ul> <li>i. Provision of the Research Grants to address the mega national issues and promote world class research.</li> <li>ii. Development of the new processes/ products/ applications/ technologies through native knowledge / skills of the researchers working in the universities and R&amp;D Institutions.</li> <li>iii. Multi-disciplinary Research on the mega issues of national importance through provision of Consortium Research Grants.</li> </ul>
1050	Financial Support to Scientific Societies in Pakistan (Phase-II)	DDWP 02-04-2020 Starting Date 02-08-2017	125.000	15.000	30.06.2024	To strengthen the role of Scientific Societies in Pakistan by providing them financial assistance for: i. Holding National and International Conferences, Seminars, Symposia, Workshops and Lectures on important scientific topics ii. Publication of Scientific Journals / Books iii. Develop and maintain the international linkages
1053	National Digital Archive of Research published in Pakistan Journals	DDWP 02-04-2020	56.000	10.000	30-06-2024	<ul> <li>Development of National Digital Repository of S&amp;T Journals publish in Pakistan</li> <li>Development of National Consortium of S&amp;T Journals publishers of Pakistan</li> <li>Capacity building of publisher's/researchers toward application/content utilization</li> </ul>
	Science Talent Farming Scheme (STFS) for Young Students– Phase-I (Component-I)	CDWP 09-06-2015 06-07-2017 DDWP Rev. 17.12.2021 Starting Date 05-12-2015	1517.071	100.000	30.06.2025	<ul> <li>To identify the young students, interested and passionate towards science education through appropriate selection criteria like 3rd Party evaluation via written test, computer based IQ test and interview.</li> <li>To groom and support the selected students all the way to the highest degrees by progressively exposing them to advancements in science and mathematics</li> </ul>
1073	Launching of STEM in Pakistan, Phase-I	DDWP 10-12-2020 DDWP Rev. 04.08.2021 Starting Date 31-03-2021	993.784	180.000	15.10.2024	• To officially launch STEM, the modern tool for promotion of Science, Technology, Engineering and Mathematics Education in Pakistan. In the 1st phase, the project shall be launched initially in 50 pure government Higher Secondary Schools (HSSs) including 06 Cadet Colleges [total 50] from different districts of Pakistan, further extendable to another 400 schools in the next phase.

10-02-22

PSDP No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date of completion	Project Objectives
1	2 Sub Total PSF	3	4 4656.355	5 455.000	6	7
All and a second		A CARDING STORE STORE	4050.555	455.000		
the local sectors of the sectors of	PCST			Contraction of the second	A CONTRACTOR	
1051	First Industrial National Innovation Survey, PCST	DDWP 04-04-2016 Ext. 27.05.2021 12 Months Starting Date 01-07-2017	42.651	18.087	7 30.06.2022	<ul> <li>To conduct a national survey of manufacturing sector for gaining insights into the industrial innovation process and gauging extent &amp; nature of its innovation activities.</li> <li>To identify the factors hampering the innovation activities at the firmlevel.</li> <li>To find out the motivational factors for firms for undertaking innovation activities.</li> </ul>
1054	Need Assessment of S&T Human Resources for Driving Innovation and Achieving Vision 2025, PCST	DDWP 04-04-2016 Ext. 27.05.2021 12 Months Starting Date 01-07-2017	22.811	7.851	30.06.2022	<ul> <li>To review and update current status of highly qualified S&amp;T human resources i.e PhDs and M.Phil /MS (minimum 18 years of education), working in public/private sector universities, R&amp;D organizations and industry.</li> <li>Tracking of PhDs produced in different disciplines during the last five years to gauge their gainful employment/ unemployment status.</li> </ul>
	Sub Total PCST		65.462	25.938	and and good in the second	
	NUST		and	A CONTRACTOR	A Statistics of the second s	
1041	Cloud Enabled Infrastructure for Research & Innovation	DDWP 02-04-2020	57.000	37.000		Upgrade of end-of-life and end-of-support NUST Main Data Centre facility from Tier-II to Tier-III standard. • Enablement of OpenStack Cloud Infrastructure to Enable university IT horizon shift from traditional IT environment to contemporary / futuristic cloud computing environment, leveraging benefits of scalability and virtualized resources.
1067	Establishment of Additional Production lines for Research and Development of Indigenous Electromedical Devices at NUST	DDWP 26-03-2021 Starting Date 23-07-2021	396.363	100.000		Establishing facility for indigenous research and development of electro-medical devices such as ventilators, PAPRs and syringe pumps etc. Later on these indigenously developed, cost effective and good quality electro-medical devices will be commercialize which will cut down hefty foreign exchange being spent on import of medical devices via import substitution.
1068	Establishment of Centre for International Peace and Stability (CIPS) at NUST	DDWP 26-03-2021 Starting Date 14-07-2021)	483.972	125.000		<ul> <li>Serve as a bastion of Peace &amp; Conflict Studies integrating Peacekeeping Training of military, police and civilian personnel for UN missions.</li> <li>Promote civil-military diplomacy and interconnectivity with UN and International Agencies, UN Country Teams and other associated organizations; and Undertake research on current and prospective international / regional crisis and issues.</li> </ul>

PSDP No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date of completion	F Project Objectives
199 <b>1</b>	2	3	4	5	6	7
1078	Strengthening and Upgradation of Research and Development facilities and Accreditation of Laboratories in Accordance with ISO (17025 Certified) Standards (NUST)	DDWP 02-04-2020 Starting Date 09-08-2021	80.000	40.000	30.06.2023	<ul> <li>To Strengthen the Research &amp; Development Activities at NUST through up gradation of labs.</li> <li>To upgrade the engineering and research labs at NUST to cater for the requirement of greater integration of advanced lab work.</li> <li>To enable NUST to pursue high impact research and commercialization ventures.</li> </ul>
	Sub Total NUST		1017.335	302.000		
	NIO			Contraction of the local division of the loc		
1039	Assessment Of Tidal Energy Potential Along Indus Deltaic Creeks, Sindh Coast	DDWP 11-05-2020	35.000	25.000	22.10.2022	<ul> <li>Oceanographic and Hydrodynamic conditions</li> <li>Bathymetry of the Tidal channels/creeks</li> <li>Remote Sensing &amp; GIS</li> <li>Weather Observations</li> <li>Numerical Hydrodynamic Computer Modeling</li> </ul>
	Monitoring theSea Water Intrusion, Sea Level Rise, Coastal Erosion and Land Subsidence along Sindh and Balochistan Coast	CDWP 19-03-2018 DDWP Rev. 02-04-2020	730.000	200.000		<ul> <li>To investigate Sea Water Intrusion along the coastal zone of Pakistan through scientific observations to assess rate of Sea Level Rise and Land Subsidence.</li> <li>To find out causes of erosion through scientific observations and relevant data for assessing its impacts on coastal areas.</li> <li>To develop mitigation strategy for countering Seawater Intrusion and Coastal Erosion.</li> </ul>
1079	Strengthening Of Oceanographic Research Sub Station Gwadar Pakistan	DDWP 06-05-2021 Starting Date 23-07-2021	300.000	25.000		Strengthen the Gwadar Sub-Station, adding 1 more laboratory (2 labs in total- refurbish the existing), computer lab/library /Seminar room, field and laboratory instrumentations and facilities. •Improve the living accommodation for out of station scientists and technicians •Repairs of boundary wall, walking paths, store room,
	Sub Total NIO	Contraction of the second	1065.000	250.000	and the second	covered vehicle garage, maintenance of grounds, fresh

PSDP No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date of completion	Project Objectives
1	2 PCRET	3	4	5	6	7
1047	Establishment of PAK-KOREA Testing Facility for PV Modules & Allied Equipment, PCRET - <i>Local share: Rs.</i> 71.000 Million to be funded through PSDP) KOICA Share: USD 8.00 Million (Rs. 1319.550 M)	CDWP 06-05- 2019 Starting Date 08-08-2019	1391.179	109.970	08.08.2024	<ul> <li>Establishment of Accredited Testing Laboratory to facilitate the introduction of PV standards for imported and locally developed PV modules in Pakistan</li> <li>To improve the quality and curtail the import of sub-standard PV modules in Pakistan</li> <li>To raise awareness of "Performance /Safety standards" in PV technologies/products among the masses; through</li> </ul>
	Sub Total PCRET		1391.179	109.970		Sominare/Conferences at
	NIE	Contract of the second s		Constanting of the second s		
1057	Semiconductor Chip Design Facilitation Center	DDWP 02-04-2020 Starting Date 16-10-2020	169.500	43.800	16.10.2024	<ul> <li>To increase the availability of highly skilled professionals in the field of Semiconductor Chip Design.</li> <li>To develop capabilities for the design of commercial grade digital ICs.</li> <li>To develop design and verification expertise for indigenous IC layouts as well as the potential for verification of IC designs.</li> </ul>
1061	Up-gradation of Printed Circuit Board (PCB) facility	DDWP 02-04-2020 Starting Date 16-10-2020	93.500	55.000	16.10.2022	<ul> <li>To add new equipment, to support micro-level PCB etching and manufacturing.</li> <li>To have small scale state of the art fabrication facility with a precision level of 4 mils.</li> <li>To equip new PCB design analysis software, which supports updated data formats which are provided by customers.</li> </ul>
	Sub Total NIE	······································	263.000	98.800	Contraction of the second second	
	PSQCA	THE RECEIPTION		NUMP. NUMP. NUMP.	CERT ADDRESS OF THE OWNER	
1043	Construction of Offices & Labs, PSQCA at Quetta.	DDWP 26-8-06 Rev 9-7-07 Rev.II 01-09-16 Rev. III 16.01.18 Starting Date 26-08-2006	53.730	5.000		<ul> <li>The primary objective of this project is to establish offices and labs of PSQCA at Quetta. Following are the specific objectives:</li> <li>(1) To provide testing facilities for products standards to cater provincial, national and international requirements and organization will generate revenue from the testing facility.</li> <li>(2) Department will save the rental expenditure amount of SDC Regional Office, Quetta.</li> <li>(3) Information Network System for instant availability of</li> </ul>
	External Development of PSQCA Building Gulistan-e- Johar Complex at Karachi	DDWP 04-04-2016 Rev. 04.08.2021 Starting Date 25-09-2017	65.000	32.905	30.06.2022	• The Main Objective of this project is to protect the building from environmental impact like land sliding and cracks in the Building Structure as well; because the nature of hill soil is decaying type and starting decaying more in rainy season which is affecting the Johar complex building in the form cracking damages, hence essentially require external development to protect this public asset.
	Sub Total PSQCA		118.730	37.905		

10-02-22

PSDP No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date or completion	f Project Objectives
1	2	3	4	5	. 6	7
	MoST Secretariat					
1040	Certification Incentive Program for SMEs under PQI Initiative 2025	CDWP 21-12-15 Rev. 19.03.18 Rev. II 09.11.20 Starting Date 28-01-2016	800.000	150.000	30.06.2023	<ul> <li>To create awareness among the SMEs for adoption of certification systems to help improve their performance and productivity.</li> <li>To organize training programmes for the stakeholders to develop and implement certification systems covering Quality, Environment, Safety/ Security, GMP &amp; Product Certifications etc.</li> </ul>
1071	Establishment of Planning, Monitoring & Evaluation (PM&E) Cell in Ministry of Science & Technology	DDWP 27.5.2021 Rev. 04.08.2021 Starting Date 16-09-2021	130.000	50.000	16.09.2024	<ul> <li>Playing a role of mentor in designing, implementation/ execution and completion of projects received through PSDP, Knowledge Economy Task Force, CPEC and Civil Military.</li> <li>Provision of necessary support through hiring of Project Management experts and establishing specialized units to handle workload of the Ministry.</li> </ul>
	Sub Total MoST Secretariat		930.000	200.000	A CONTRACTOR	
Α	Total MoST Organizations		20383.706	3339.764		
В	Task Force					
	Advanced Skills Development through International Scholarships (Knowledge Economy Initiative)	CDWP 03-03- 2020 ECNEC 21-01-2021 Starting Date 15-07-2021	13361.000	200.000	15.07.2028	<ul> <li>The prime objective is to provide international education of high standards to students at various academic levels.</li> <li>Providing opportunity to students to excel in emerging technology thrust areas such as AI, Block Chain, and other emerging technologies to become domain experts.</li> </ul>
1044	Establishment of Center for Advanced Technologies in Biomedical Materials (Knowledge Economy Initiative)	CDWP 06-08- 2019 Ext. 30.06.2022 Starting Date 16-09-2019	849.328	103.000	30.06.2022	To establish a Center for Advanced Technologies in Biomedical Materials (CATBM) to coordinate and integrate latest research in the multidisciplinary subject spectrum associated with Biomedical Materials and Tissue Engineering.
	Establishment of Centre For Artificial Intelligence (AI) In Health Sciences (Knowledge Economy Initiative)	CDWP 09-12- 2019 Starting Date 06-01-2020	321.450	78.236		<ul> <li>To build up the national / provincial level center in Al for research and training purposes.</li> <li>To raise awareness in the masses of people to the use of Al in daily life.</li> <li>To establish a hub of innovation for the applications of Al and to create entrepreneurship in Al areas of research.</li> </ul>

PSDP No.	Name of Project	Approved by Forum with date of approval and Admin Approval	Total Cost	Allocation 2021-22	Likely date of completion	Project Objectives
1						
	2 Establishment of Facilities for Industrial Production of Nanomaterials in Latif Ebrahim Jamal Nanotechnology Center (Knowledge Economy Initiative)	3 CDWP 06-08- 2019 Starting Date 01-10-2019	<u>4</u> 714.533	5 100.000	6 01.10.2022	<ul> <li>To develop easy to clean Nano-coated surface on ceramics or glasses through specialized techniques in nanotechnology.</li> <li>To develop metal oxide nanoparticles coat glazing with sterilizing and anti-fouling properties. Similarly, with the help of nanotechnology to develop self-cleaning glass.</li> </ul>
1063	Data Repository of Scientific Instrumentation	DDWP 27-05-2021 Starting Date 27.08.2021	300.000	50.000	27.08.2024	<ul> <li>To provide funds for instrumental access to the research institutions, universities, R &amp; D organizations, and strategic research centers of Pakistan to carry out sample analysis.</li> <li>To facilitate faculty and research staff of newly developed, as well as existing institutions that lack scientific instrumental facility</li> </ul>
1066	Establishment of "National Centre of Failure Analysis (NCFA)" - IST	DDWP 10.12.2020 Starting Date 01-12-2021	550.000	70.000	01.12.2025	<ul> <li>To develop a center of excellence at national level for "Failure Analysis" of mechanical parts, with an aim to provide in-country support to variety of organizations from SPD, defense and public / private sector industries</li> <li>To provide a centralized platform for comprehensive material advisory services for selection of suitable materials to manufacture parts of high quality standards.</li> </ul>
1072	Gene Editing of Biological Agents for Nutritional Biochemical and Therapeutical purpose	DDWP 10.12.2020 Starting Date 26-04-2021	1799.598	400.000	25.04.2024	<ul> <li>Establish an advanced gene editing facility at PCSIR along with associated equipment and systems that could be used for a wide range of purposes such as nutritional and therapeutic purposes, leading to indigenous commercial/industrial manufacturing.</li> <li>Develop indigenous strain development genetic engineering capability in terms of R&amp;D and subsequent commercial production</li> </ul>
1074	Medical Equipment & Devices Innovation Center (MEDICen)	DDWP 27.5.2021 Starting Date 09.11.2021	1989.520	100.000	09.11.2025	<ul> <li>A biofoods, biochamicals, biopharmacouticals, biofortilizors, The MEDICen will aim to:</li> <li>Assist Pakistani Medical and Surgical Manufacturers in research and development of Medical equipment not only to cater for local market demand but also for export.</li> <li>Understand and synthesize the local medical device industry support requirement, skill development, ecosystem, viability of manufacturing in Pakistan.</li> </ul>
1075	National Technology Innovation through Industry- Research Centre and other Stakeholders Collaboration	DDWP 10.12.2020 Starting Date 07-07-2021	1959.496	400.000	07.07.2026	<ul> <li>To achieve social prosperity:</li> <li>To develop better and successful university-industry linkages:</li> <li>To develop the capacity and capability of R&amp;D institutions:</li> <li>To develop Institutions and individual researcher networks:</li> </ul>
	Total Task Force		21844.925	1501.236		
	Grand Total (A+B)		42228.631	4841.000		
lote: Knov	One development project titled "Pak University of I ledge Economy Initiative)" shifted to HEC in Octo	Engineering and ober, 2021.	Emerging Te	chnologies	s (PUEET)	

10-02-22